

REMARKS/ARGUMENTS

The Office Action (hereinafter the Action) mailed April 18, 2005 has been reviewed and these remarks are responsive thereto. Claims 1-39 remain pending in this application and currently stand rejected. Upon entry of this amendment, claims 1, and 3-5 are amended. Applicants respectfully request that this amendment be entered, and that the application be reconsidered.

Claim Amendments

Claims 1, and 3-5 have been amended merely to repair some non-substantive errors in the claims. The word "and" was added to claim 1, claims 3-4 have been amended to provide the text of certain acronyms, and claim 5 was amended to provide a more commonly-known acronym for a networking standard.

Rejections under 35 U.S.C. § 102

The Action rejected claims 1, 6, 7, 10-15, 19, 22-25, 29, and 32 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,497,655 to Linberg, *et al.* (hereinafter *Linberg*). Applicants respectfully traverse these rejections, as every element of the rejected claims is not taught or suggested by the cited reference. For example, claim 1 recites, among other features:

at the implantable pulse generator device, executing at least one application program that provides data that is to be exchanged and executing a set of information exchange instructions on the data obtained from the application program to: divide the data into packets

(Emphasis added) Independent claims 15 and 25 similarly include the use of data packets in an implantable pulse generator device. The Action, referring to the rejected claims, alleges:

The disclosed packet based system [Linberg, col. 4, ln. 43-63] is considered to anticipate the claimed data packet and header data because both are sent over multiple types of network architectures using the same transmission and transport instructions.

The portion of *Linberg* cited by the Action is from that patent's background and sets forth, among other things:

The patient monitoring station obtains digital video, voice and medical measurement data from a patient and encapsulates the data in packets and sends the packets over a network to the central monitoring station.

The patient monitoring system described is not an implantable pulse generator device. Such a system does not apparently include such devices. Rather, a system external to a patient retrieves data from a multitude of devices (video, audio, etc.), and only then encapsulates the data into packets. There is no teaching or suggestion in *Linberg* that an implantable pulse generator device sends and/or receives data packets. Such a system does not, therefore, anticipate the features of independent claims 1, 15, and 25.

Claim 1 further recites:

a set of information exchange instructions on the data obtained from the application program to ... apply header data to each packet that provides transport control information that controls the reconstruction of the data from the data packets

In alleging anticipation of this portion of independent claim 1, the Action alleges that:

The disclosed pretest [Linberg, col. 7, ln. 35-41] is considered to anticipate the claimed header data because both contain instructions and information about how to properly use the packets;

The portion of *Linberg* cited by the Action is also from that patent's background and sets forth, among other things:

The system presents a user with a pretest, a module containing instructions, information about a certain portion of the task to be performed, as well as mini-simulations and a variety of questions.

The pretest described in *Linberg* does not anticipate applying header data to a packet providing transport control information that controls the reconstruction of data. Nowhere else in *Linberg* is packet header data even suggested. The pretest described

here is an examination given to a person and does not relate to data packets or transport control. *Linberg*, therefore, does not anticipate this feature of claim 1, nor does it anticipate the similar features of claims 15 and 25.

The Action further alleges that claim 25 is anticipated in part by the "data exchange system" of *Linberg*. However, as set forth above, *Linberg* does not teach the use of data packets within an implantable pulse generator device.

Accordingly, Applicants respectfully submit that independent claims 1, 15, and 25 are allowable. In addition, the rejected claims that ultimately depend from claims 1, 15, and 25, including claims 6, 7, 10-14, 19, 22-24, 29, and 32, are allowable by virtue of their dependency on claims 1, 15 and 25. Some or all of these dependent claims additionally recite features that are not taught or suggested by *Linberg*. For example, claim 12 recites, among other features:

at the implantable pulse generator device, executing the information exchange instructions to ... extract header data to obtain transport control information to determine how to reconstruct the data packets into data for the at least one application program

Nowhere in *Linberg* does an implantable pulse generator execute instructions in keeping with these features of claim 12. Furthermore, the extraction of transport control information is not so much as hinted at in the reference.

For at least these reasons, Applicant respectfully submits that the rejections of claims 1, 6, 7, 10-15, 19, 22-25, 29, and 32 under 35 U.S.C. §102(e) should be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

The Action rejected claims 3, 5, 8, 9, 16, 18, 20, 21, 26, 28, 30, and 31 under 35 U.S.C. §103(a) as obvious over *Linberg* in view of U.S. Publication No. 20010031997 invented by Lee (hereinafter *Lee*). Applicants respectfully traverse these rejections, as every element of the claims is not anticipated by the combination of references. In rejecting these claims, the Action states that:

The Linberg reference teaches the claimed invention as previously discussed, under the anticipatory rejection, except for the claimed use of TCP network protocol. However, Lee teaches the use of TCP protocol (see col. 13, para. 0044, col. 17, para. 0056, Lee). It would have been obvious to one of ordinary skill in the art to combine the teachings of Linberg with the TCP protocol disclosure of Lee for the purpose of transferring data in packets with transport control information included.

Although *Lee* discloses the use of implantable medical devices generally, as well as the use of TCP, it does not in any way teach or suggest the use of TCP packets when communicating with an implantable medical device such as an implantable pulse generator device. Having noted above that *Linberg* does not teach the use of data packets with such devices, the combination of *Linberg* and *Lee* will therefore not anticipate the claims.

Furthermore, Applicants assert that there is no motivation to combine *Linberg* with *Lee*. The Action merely states that the combination would have been obvious to one of ordinary skill in the art for the purpose of transferring data in packets with transport control information included. This is circular reasoning, using the claim to create a motivation, and it amounts to improper hindsight. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. MPEP 2143.01.

The Action rejected claims 4, 17, and 27 under 35 U.S.C §103(a) as obvious over *Linberg* in view of U.S. Publication No. 20010023360 invented by Nelson, *et al.* (hereinafter *Nelson*). Applicants respectfully traverse these rejections, as every element of the claims is not found in either *Linberg* or *Nelson*. In rejecting these claims, the Action states:

Linberg is considered to disclose the claimed invention as discussed above, under the anticipatory rejection except for the claimed use of UDP protocol. However, Nelson teaches the use of UDP protocol (see col. 16, para. 0057, Nelson). It would have been obvious to one of ordinary skill in the art to combine the teachings of Linberg with the UDP protocol

disclosure of Nelson for the purpose of transferring data in packets with transport control information included.

As with *Lee*, although *Nelson* discloses the use of implantable medical devices generally, as well as the use of UDP, it does not in any way teach or suggest the use of UDP packets when communicating with an implantable medical device such as an implantable pulse generator device. Having noted above that neither *Linberg* nor *Lee* teach the use of data packets with such devices, any combination of *Linberg*, *Lee*, and *Nelson* will therefore not anticipate the claims.

Also as with *Lee*, there is no motivation to combine *Nelson* and *Linberg*. The Action merely repeats the reasoning that the combination would have been obvious to one of ordinary skill in the art for the purpose of transferring data in packets with transport control information included. Circular reasoning such as this cannot form the basis of a motivation to combine reference and amounts to improper hindsight.

The Action rejected claims 33-39 under 35 U.S.C. 103(a) as being anticipated over *Linberg* in view of U.S. Patent No. 6,662,052 to Sarwal, *et al.* (hereinafter *Sarwal*). Applicants respectfully traverse these rejections as every element of the rejected claims is not found in the combination of *Linberg* and *Sarwal*, nor in any of the references cited. In addition to other features, independent claim 33 recites:

establishing a second transport layer connection between the repeater and the implantable pulse generator over the wireless connection

In rejecting independent claims 33 and 37, as well dependent claims 34-36 and 38-39, the Action alleges:

Linberg is considered to disclose the claimed invention as discussed above, under the anticipatory rejection, except for the claimed transport layers and connections. However, Sarwal teaches a method and system of transferring data between the data network and implantable medical device utilizing transport layer connections to transfer data in packets (see col. 14, In. 35-45 and col. 15, In. 1-6, Sarwal). It would have been obvious to one of ordinary skill in the art to combine the teachings of Linberg with the considered wireless application protocol teaching found in Sarwal for the purpose of wirelessly transmitting packets from the implantable pulse generator device.

As with *Lee* and *Nelson*, although *Sarwal* discloses the use of implantable medical devices generally, as well as the use of a Wireless Application Protocol (WAP) transport layer, it does not disclose an implantable pulse generator using data packets to transfer data. The device of *Sarwal* which uses wireless communication is an external stimulator unit. For example, FIG. 10A of *Sarwal* shows a device 152 in communication which is not implantable and which sits outside a patient's body. Combining *Sarwal* with *Linberg* does not repair this deficiency since *Linberg* does not disclose an implantable pulse generator using data packets, as discussed above. As with independent claims 33 and 37, dependent claims 34-36 and 38-39 cannot be rendered obvious by virtue of their dependency on claims 33 and 37. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 33-39 under 35 U.S.C. 103(a) as being anticipated over *Linberg* in view of U.S. Patent No. 6,662,052 to Sarwal, *et al.* (hereinafter *Sarwal*).

For at least the foregoing reasons, the rejections of claims 3- 5, 8, 9, 16-18, 20, 21, 26-28, 30, 31, and 33-39 under 35 U.S.C. § 103(a) are improper and should be withdrawn.

CONCLUSION

Accordingly, Applicants respectfully request reconsideration of claims 1-39 in view of the above remarks. It is believed that the claims are now in condition for allowance. A speedy and favorable action on the merits is hereby solicited. Should the Examiner have any questions or comments, please contact Applicant's undersigned representative at (404) 954-5100.

Respectfully submitted,

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